MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2016/2017

BSE2414 Software Engineering

(All sections / Groups)

15 OCTOBER 2016
9.00 AM – 11.00 AM
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of **TWO (2)** printed pages including cover page.
2. Answer **ALL** questions in the answer booklet provided to you.
3. Marks are shown at the end of each question.

ESSAY QUESTIONS (100 Marks)

There are FOUR (4) essay questions. Answer ALL questions.

Question 1

a. Describe the FOUR (4) fundamental activities in software processes. (10 marks)

b. A very influential agile method, developed in the late 1990s is Extreme Programming. Describe any THREE (3) practices of an Extreme Programming method. (9 marks)

c. A company is developing database products for microcomputers. As they are database products, it is important that the system does not corrupt the database. Suggest any TWO (2) product metrics. (6 marks)

(Total: 25 marks)

Question 2

a. Distinguish between Object Oriented Design and Use Case Modelling. (10 marks)

b. Develop an object-oriented system model to show the classes and associations between these classes in a hospital system involving condition, patient, general practitioner, consultant, medication, treatment and hospital doctor. (15 marks)

(Total: 25 marks)

Question 3

You are a project manager in Google Inc. You are tasked to plan, design and implement a complete system for self-driving car within 12 months for a budget of RM10 million. Using the project management stages, plan activities for each of the FIVE (5) stages.

(Total: 25 marks)

Question 4

Apply the most appropriate generic software process model that might be used as a basis for managing the development of the following systems (5 marks each): *Hint: Choose one software development model and justify why this model is best for the system.*

a. A system to control anti-lock braking in a car
b. A virtual reality system to support software maintenance
c. A university accounting system that replaces an existing system
d. An interactive travel planning system that helps users plan journeys with the lowest environmental impact
e. A training application system to support employees` application process and training record.

(25 marks)

(Total: 25 marks)

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